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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/920,883	08/02/2001	Shin Iima	450100-03386	5191
20999	7590	04/07/2006	EXAMINER	
FROMMER LAWRENCE & HAUG 745 FIFTH AVENUE- 10TH FL. NEW YORK, NY 10151			CHANG, SHIRLEY	
			ART UNIT	PAPER NUMBER
			2623	

DATE MAILED: 04/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center"><b>Advisory Action</b> <b>Before the Filing of an Appeal Brief</b></p>	<b>Application No.</b> 09/920,883	<b>Applicant(s)</b> IIMA ET AL.	
	<b>Examiner</b> Shirley Chang	<b>Art Unit</b> 2623	

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 29 March 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.  
 b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

#### AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
 (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
 (b) ☐ They raise the issue of new matter (see NOTE below);  
 (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
 (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
 5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
 6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
 7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
 The status of the claim(s) is (or will be) as follows:  
 Claim(s) allowed: \_\_\_\_\_.  
 Claim(s) objected to: \_\_\_\_\_.  
 Claim(s) rejected: \_\_\_\_\_.  
 Claim(s) withdrawn from consideration: \_\_\_\_\_.


#### AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
 9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
 10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

#### REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.  
 12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). \_\_\_\_\_.  
 13. ☐ Other: \_\_\_\_\_.

Continuation of 11. does NOT place the application in condition for allowance because: The portion of Kim relied upon by the Office action paragraph [0076] is indeed disclosed by provisional 60/176121 on pages 1, 3, first paragraph, 4, first paragraph, and figure 2.



CHRISTOPHER GRANT  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800

01-18-00

A/P50V

01/14/00

Jc760 U.S. PTO

**PROVISIONAL APPLICATION FOR PATENT COVER SHEET**

This is a request for filing a provisional application for patent under 37 CFR 1.53 (c).

Jc541 U.S. PTO  
60/176121

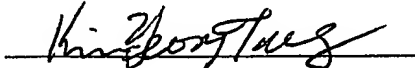
01/14/00

INVENTOR					
First Name	Family Name or Surname		Residence		
YEONG-TAEG	KIM		440 DIXON LANDING RD. #D103, MILPITAS, CA 95035, USA		
<input type="checkbox"/> Additional Inventors are being named on the _____ separately numbered sheets attached hereto					
TITLE OF THE INVENTION					
Free Digital TV Service and the Receiver Thereof					
CORRESPONDENCE ADDRESS					
Individual Name	YEONG-TAEG KIM				
Address	440 DIXON LANDING RD. #D103				
City	MILPITAS	State	CA	Zip	95035
Country	U.S.	Telephone	408-666-9020	Fax	
ENCLOSED APPLICATION PARTS					
<input checked="" type="checkbox"/>	Specification Number of Pages	4	<input checked="" type="checkbox"/>	Small Entity Statement	
<input checked="" type="checkbox"/>	Drawing(s) Number of Sheets	1	<input type="checkbox"/>	Other(Specify) _____	
METHOD OF PAYMENT OF FILING FEES FOR THIS PROVISIONAL APPLICATION FOR PATENT					
<input checked="" type="checkbox"/>	A check or money order is enclosed to cover the filing fees			FILING FEE AMOUNT (\$)	
<input type="checkbox"/>	The Commissioner is hereby authorized to charge filing fees or credit any overpayment to Deposit Account Number: _____			<div style="border: 1px solid black; padding: 5px; display: inline-block;">\$ 75.00</div>	
The invention was made by an agency of the United States Government of under a contract with an agency of the United States Government:					
<input checked="" type="checkbox"/>	No.				
<input type="checkbox"/>	Yes, the name of the U.S. Government agency and the Government contract number are : _____				

Respectfully submitted,

Date 01 / 14 / 2000

SIGNATURE



TYPED OR PRINTED NAME

YEONG-TAEG KIM

TELEPHONE

(408) 666-9020

REGISTRATION NO.

(if appropriate)

Docket Number:

USE ONLY FOR FILING A PROVISIONAL APPLICATION FOR PATENT

**STATEMENT CLAIMING SMALL ENTITY STATUS  
(37 CFR 1.9(f) & 1.27(b))--INDEPENDENT INVENTOR**

Docket Number (Optional)

Applicant, Patentee, or Identifier: Yeong-Taeg Kim

Application or Patent No.: \_\_\_\_\_

Filed or Issued: \_\_\_\_\_

Title: Free Digital Service and the Receiver Thereof

As a below named inventor, I hereby state that I qualify as an independent inventor as defined in 37 CFR 1.9(c) for purposes of paying reduced fees to the Patent and Trademark Office described in:

- ☒ the specification filed herewith with title as listed above.  
☐ the application identified above.  
☐ the patent identified above.

I have not assigned, granted, conveyed, or licensed, and am under no obligation under contract or law to assign, grant, convey, or license, any rights in the invention to any person who would not qualify as an independent inventor under 37 CFR 1.9(c) if that person had made the invention, or to any concern which would not qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR 1.9(e).

Each person, concern, or organization to which I have assigned, granted, conveyed, or licensed or am under an obligation under contract or law to assign, grant, convey, or license any rights in the invention is listed below:

- ☒ No such person, concern, or organization exists.  
☐ Each such person, concern, or organization is listed below.

Separate statements are required from each named person, concern, or organization having rights to the invention stating their status as small entities. (37 CFR 1.27)

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b))

Yeong-Taeg Kim  
NAME OF INVENTOR

NAME OF INVENTOR

NAME OF INVENTOR

Kim Yeong-Taeg  
Signature of Inventor

Signature of Inventor

Signature of Inventor

11/14/00  
Date

Date

Date

## Free Digital TV Service and the Receiver Thereof

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### Abstract

This invention discloses a Free Digital TV service, which is described as follows. A *Digital TV Service Operator* (SO) is sending a signal over their networks, such as cable or satellite networks, containing bitstreams of regular TV programs and Banner Information intended for commercial advertisement, a user gets the Free Digital TV receiver based upon the agreement between the SO and a user such that the SO can occupy partially the user's video presentation device connected to the Free Digital TV receiver to present Banner Information for commercial advertisement purpose and the SO shall not impose any charge or shall impose little charge to the user for their Digital TV service, where the Free Digital TV receiver consists of a channel demodulator, a *Transport Stream* (TS) demultiplexer, audio and video decoders, a Banner depacketizer which depacketizes the Banner TS Packets carrying coded Banner Information, a renderer which decodes and renders the coded Banner Information into a bitmap video signal, and a video output reconstruction unit which generates the output video signal with the rendered Banner Information and the decoded video output, and then the user's Free Digital TV receiver receives the signal available in the channel, decodes, and delivers the regular TV programs to the user's presentation device and also decodes, renders, and presents the Banner Information to the user's video presentation device.

## Detailed Description of the Invention

This invention is an extension of the one filed for the U.S. provisional patent by the same inventor titled as "*Advanced interactive services for digital TV and video service networks*" which was received by the U.S. Patent Office on Dec. 29, 1999.

The following terminology are defined in this invention for systematic description of the Free Digital TV service.

*Banner Information* is defined as contents in the forms of texts, graphics, images, or, etc, intended for commercial advertisement.

*Coded Banner Information* is a coded bitstream of the Banner Information including all necessary information required for proper rendering process at the associated receiver of the Free Digital TV service. Examples of coding of the Banner Information include, but not limited to, such as JPEG, HTML, Java applet, and etc.

*Banner TS Packet* is a packetized bitstream of the Coded Banner Information based on the Transport Stream syntax of the international standard ISO/IEC 13818-1.

*Rendering* refers to the process which decodes and renders the Coded Banner Information into a bitmap video signal so that it can be presented to the user's video presentation device.

## Free Digital TV Service

The Free Digital TV service claimed in this invention is a service which fundamentally delivers Digital TV programs without imposing any service charge or with little service charge to the users who granted that the *Digital TV Service Operator* (SO) can present commercial banner advertisement on their video presentation devices. This invention also claims the associated receiver for the Free Digital TV service. The details of the invention is disclosed next.

An SO is sending a signal over their networks, such as cable or satellite networks, containing *Transport Stream* (TS) packets of coded bitstreams of regular TV programs and Banner Information which is intended for commercial advertisement. Coding of programs and Banner Information varies depending on applications. For instance, a video content of a regular program can be coded by using MPEG-2 video codec, an audio content of a program can be coded based on MPEG-2 audio codec or AC-3 codec, and Banner Information can be coded by using JPEG, HTML, Java applet, or etc. The way of generating, multiplexing, and sending TS packets containing the coded regular TV programs and the coded Banner Information can be referred to the international standard ISO/IEC 13818-1, which is also known as the MPEG-2 Systems. This is briefly illustrated in Figure 1. Great details of the MPEG-2 Systems can be also found from the textbook cited below:

*Digital Video: An Introduction to MPEG-2*, Barry G. Haskell and et. al., Champman and



Hall, New York, NY, USA, 1997.

Then a Free Digital TV receiver will be available to the users who agreed with the SO upon that the SO can occupy partially the user's video presentation device connected to the Free Digital TV receiver to present rendered Banner Information for commercial advertisement purpose and the SO shall not impose any charge or shall impose little service charge to the user for their Digital TV service, and the user's Free Digital TV receiver receives and demodulates the signal of the channel that the user tuned, decodes and delivers the regular TV programs to the user's presentation device, and also decodes, renders, and presents the Banner Information to the user's video presentation device.

The functional architecture of the Free Digital TV receiver is shown in Figure 2, which consists of a channel demodulator, a TS demultiplexer which demultiplexes the bitstreams of the regular TV programs and Banner Packets, audio and video decoders which decode the coded audio and video contents of the received TV program, a Banner TS depacketizer which depacketizes the Banner Packets and gets the coded Banner Information, a renderer which decodes and renders the coded Banner Information into a bitmap video signal, and a video output reconstruction unit which reconstructs the output video signal with the rendered Banner Information and the decoded video output.

## Drawings

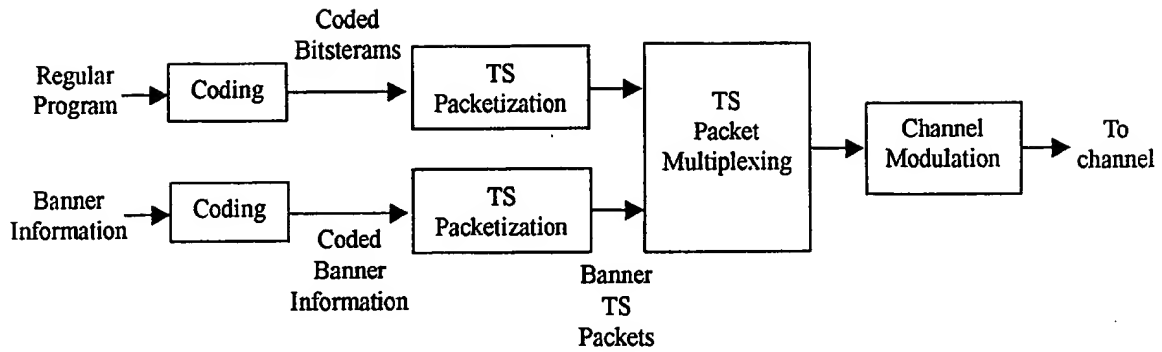


Figure 1. A simplified block diagram illustrating how TS packet stream is generated. For TS packetization, refer to the TS syntax defined in the ISO/IEC 13818-1.

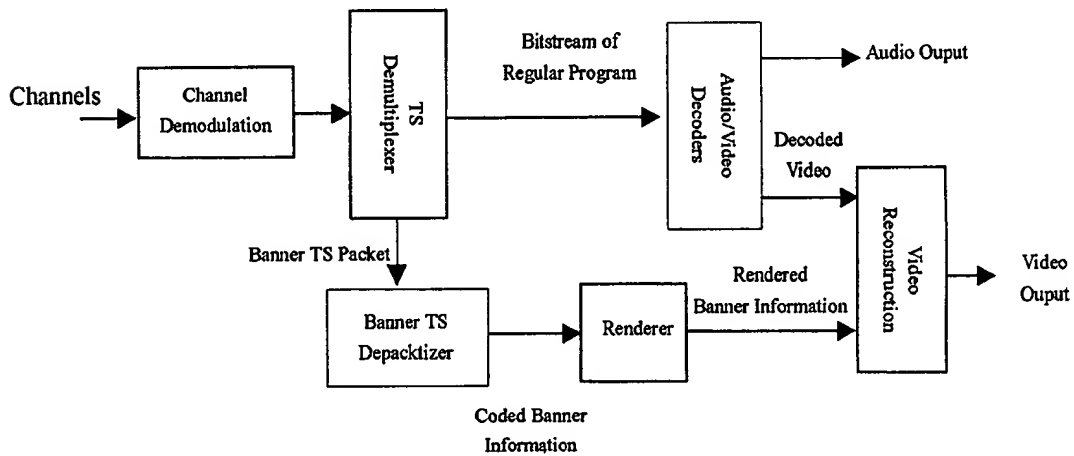


Figure 2. The block diagram of the Free Digital TV receiver.